

REMARKS

By this Amendment, claims 1 and 14 are amended to merely clarify the recited subject matter and a substitute Abstract is submitted on a separate sheet of paper (attached). Claims 1-17 are pending.

The Office Action rejected claims 1, 4-7, 10-12 and 14 under 35 U.S.C. 102(e) as being anticipated by Rabipour et al. (U.S. 6,324,515; hereafter “Rabipour”) and rejected claims 2-3, 8-9 and 15-17 under 35 U.S.C. 103(a) as being obvious from Rabipour and Tseng et al. (U.S. 6,172,974; hereafter “Tseng”). Applicant traverses the rejections because the cited prior art references, analyzed individually or in combination, fail to disclose, teach or suggest the claimed invention.

For example, the cited prior art fails to disclose, teach or suggest the claimed digital telecommunication system “wherein the first and second transcoder units each include speech codecs and each of the terminals comprises one or more speech codecs, each including an encoder unit and a decoder unit, the terminals being arranged to provide information regarding the supported one or more speech codecs to their associated switching centres; the first centre is configured to perform handshaking with the second centre, the handshaking including indication of the speech codecs supported by the calling terminal, wherein at least one of the first and second centres is configured to choose the speech codec used commonly by the calling and called terminals, and wherein at least one of the first and second centres is configured to establish call connections that bypass one or more of the transcoder units or to control the transcoder units to transmit encoded speech between the called and calling terminals without performing speech encoding operations so that speech is encoded and decoded only in the terminals,” as recited in independent claim 1. Moreover, the cited prior art fails to disclose, teach or suggest the claimed centre in a digital telecommunication network configured to receive information regarding supported one or more speech codecs of a calling terminal, each speech codec including an encoder unit and a decoder unit, and connect a transcoder located in a transcoder unit to a call connection when required, wherein: the centre is configured to perform handshaking with another centre associated with a called terminal, the handshaking including indication of speech codecs supported by the calling terminal associated with the centre, the centre also being configured to choose the speech codec commonly used by the terminals...,” as recited in independent claim 14.

In accordance with the claimed invention, the TFO/TrFO negotiation is terminal-driven, i.e., the speech codecs supported by the terminals are indicated to the switching

centres, which thereafter control the operation. That is, the MSCs receive indications from terminals about their supported speech codecs, the MSCs decide the most appropriate speech codec (e.g, the best encoder unit among a plurality of commonly supported encode units), the MSCs indicate the chosen speech codec to the terminals, and, only if no common speech codec is available, then the MSCs control the operation of the transcoders.

Thus, the claimed invention relates to transcoder-free operation (TrFO) in a mobile communication system, wherein the transcoders are not a part of the transmission path, but they are only connected, when particularly needed. In such a system, a switching centre controls the operation of a transcoder; TrFO is a default setting, and only when no common speech codec is available for the terminals of the connection. A MSC connects a transcoder from a transcoder unit for the connection. In search of a common speech codec, the MSCs are then informed of the speech codecs supported by the terminals, and the MSCs choose the best speech codec to be used on the connection.

To the contrary, Rabipour merely discloses an arrangement for avoiding tandem coding in a telecommunication system, wherein the terminals include vocoders with preferably only one encoder unit and a plurality of decoder units. Information regarding the supported decoders is transmitted to the base station of the opposite terminal, and the base stations then carry out handshaking, whereby suitable decoders are chosen for use in both terminals such that a TFO connection is established. The base stations are connected to each other via a PSTN connection. Thus, Rabipour fails to disclose, teach or suggest any transcoder-free operation (TrFO).

In Rabipour, the transcoders, while located in the base stations, are a part of the transmission path and transcoding is a default setting for the operation, which has to be separately switched off (col. 10, l. 26-35) in case of TFO operation. In Rabipour, it is not possible to choose the most suitable speech codec, since there is only one encoder unit available in each terminal, for which a corresponding decoder unit should be found in the receiving terminal in order to establish TFO operation. Accordingly, Rabipour fails to enable optimization of the transmission bandwidth in terms of a used speech encoding scheme.

Tseng fails to remedy the deficiencies of Rabipour because Tseng's terminals do not participate in the selection of inter-MSC coding and Tseng's centres do not choose any codec for the terminal to use.

Accordingly, the combined teachings of the cited prior art references fail to teach or suggest one or more centres in a digital telecommunication network configured to receive

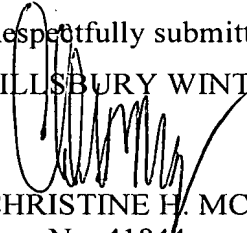
information regarding supported one or more speech codecs of a calling terminal, each speech codec including an encoder unit and a decoder unit, and connect a transcoder located in a transcoder unit to a call connection when required, wherein a centre is configured to perform handshaking with another centre associated with a called terminal, the handshaking including indication of speech codecs supported by the calling terminal associated with the centre, the centre also being configured to choose the speech codec commonly used by the terminals.

All objections and rejections having been addressed, Applicant requests that the Office issue a Notice of Allowance indicating the allowability of all the pending claims. However, if anything remains necessary to place the application in condition for allowance, Applicant requests that the Examiner telephone the undersigned Applicant representative.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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